Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. Claims 1-15 (Cancelled).

16. (Previously Presented) A fluid-energy mill for size reduction of a material, comprising:

a monolithic manifold having a front face and a rear face, the monolithic manifold including:

a cycloid-shaped grinding chamber formed in the front face and operable to impart particle-on-particle size reduction of material within the grinding chamber;

a feed inlet formed in the manifold in communication with the grinding chamber;

a gas inlet formed in the manifold in communication with the grinding chamber; and

an outlet formed in the rear face and in communication with the grinding chamber; and

a cover removably attachable to the manifold for covering the front face.

17. (Original) The fluid-energy mill of claim 16 wherein the manifold defines a non-circular groove around the grinding chamber.

18. (Original) The fluid-energy mill of claim 17, further comprising a seal positioned within the groove.

19. (Cancelled).

20. (Original) The fluid-energy mill of claim 16 wherein the manifold further defines a protective pocket at a region where the material enters the grinding chamber.

21. (Original) The fluid-energy mill of claim 20 wherein the manifold further defines a barrier at the region where the material enters the grinding chamber.

22. (Original) The fluid-energy mill of claim 16 wherein the feed inlet includes a feed gas inlet and a material funnel.

23. (Original) The fluid-energy mill of claim 22 wherein an intersection of the feed gas inlet and the material funnel forms an elliptical hole.

24. (Original) The fluid-energy mill of claim 22 wherein the feed inlet includes a venturi.

25. (Previously Presented) The fluid energy mill of claim 16 wherein the feed inlet is oriented at an angle to a horizontal with respect to an upper surface of the monolithic manifold.

26. (Original) The fluid energy mill of claim 25 wherein the angle is about 30 degrees or more.

27. (Original) The fluid energy mill of claim 16 wherein

the grinding chamber has a center and a first radius extending from the center, and

the feed inlet is positioned such that the material enters the grinding chamber tangent to a second radius extending from the center, the second radius being larger than the first radius.

28. (Original) The fluid energy mill of claim 16, wherein

the grinding chamber has a center and a first radius extending from the center, and

the gas inlet is positioned such that a gas enters the grinding chamber tangent to a gas inlet radius extending from the center, the gas inlet radius being smaller than the first radius.

29. (Original) The fluid energy mill of claim 16, wherein the outlet is positioned such that the material exits the grinding chamber at or near the center.

Claims 30-49 (Cancelled).

50. (Previously Presented) The fluid energy mill of claim 24, wherein the venturi is formed in a position between the grinding chamber and the feed gas inlet.

51. (Previously Presented) The fluid-energy mill of claim 16, wherein the monolithic manifold further comprises a nozzle formed in a position adjacent to the grinding chamber.

52. (Previously Presented) The fluid-energy mill of claim 51, wherein an outlet of said nozzle is in communication with said grinding chamber.

53. (Previously Presented) The fluid-energy mill of claim 16, wherein the monolithic manifold further comprises a plurality of coplanar nozzles formed in positions adjacent to the grinding chamber.

54. (Previously Presented) The fluid-energy mill of claim 53, wherein an outlet of each of said nozzles is in communication with said grinding chamber.

55. (Withdrawn) A fluid-energy mill for size reduction of a material, comprising:

a monolithic manifold having a front face and a rear face, the monolithic manifold including:

a grinding chamber formed in the front face;

a feed inlet formed in the manifold in communication with the grinding chamber, the feed inlet including a gas inlet bore and a material funnel; and

an outlet formed in the rear face and in communication with the grinding chamber; and

a cover removably attachable to the manifold for covering the front face.

56. (Withdrawn) The fluid energy mill of claim 55, wherein the feed inlet further includes a feed gas inlet positioned between the gas inlet bore and the grinding chamber.

57. (Withdrawn) The fluid energy mill of claim 56, wherein an intersection of the feed inlet and an apex of the material funnel forms an elliptical hole.

58. (Withdrawn) The fluid energy mill of claim 56, wherein the feed inlet further includes a venturi.

59. (Withdrawn) The fluid energy mill of claim 58, wherein the venturi is formed in a position between the grinding chamber and the gas inlet bore.

60. (Withdrawn) The fluid energy mill of claim 55, wherein an intersection of the feed inlet and an apex of the material funnel forms an elliptical hole.

61. (Withdrawn) The fluid energy mill of claim 55, wherein the feed inlet further includes a venturi.

62. (Withdrawn) The fluid energy mill of claim 61, wherein the venturi is formed in a position between the grinding chamber and the gas inlet bore.

63. (Withdrawn) The fluid-energy mill of claim 55, wherein the manifold defines a non-circular groove around the grinding chamber.

64. (Withdrawn) The fluid-energy mill of claim 63, further comprising a seal positioned within the groove.

65. (Withdrawn) The fluid-energy mill of claim 55, wherein the grinding chamber is cycloid-shaped.

66. (Withdrawn) The fluid-energy mill of claim 55, wherein the feed gas inlet is connected to the grinding chamber and the manifold further defines a barrier at a region of the grinding chamber where the feed gas inlet is connected with the grinding chamber.

67. (Withdrawn) The fluid-energy mill of claim 55, wherein the grinding chamber is cycloid-shaped and further includes

a center,

a first radius extending from the center to a periphery of the grinding chamber,

a second radius extending from the center to the periphery of the grinding chamber, the second radius being larger than the first radius, and

a feed gas inlet connected with the grinding chamber at a point tangent to the second radius extending from the center.

68. (Withdrawn) The fluid-energy mill of claim 67, wherein the gas inlet bore and the feed gas inlet are coplanar.

69. (Withdrawn) The fluid-energy mill of claim 67, wherein the material funnel is positioned at an angle with respect to said gas inlet bore.

70. (Withdrawn) The fluid-energy mill of claim 69, wherein the gas inlet bore and the feed gas inlet are coplanar.

71. (Withdrawn) The fluid-energy mill of claim 55, wherein the monolithic manifold further comprises a nozzle formed in a position adjacent to the grinding chamber.

72. (Withdrawn) The fluid-energy mill of claim 71, wherein an outlet of said nozzle is in communication with said grinding chamber.

73. (Withdrawn) The fluid-energy mill of claim 55, wherein the monolithic manifold further comprises a pair of nozzles formed in positions adjacent to the grinding chamber.

74. (Withdrawn) The fluid-energy mill of claim 73, wherein an outlet of each of said nozzles is in communication with said grinding chamber.

75. (New) A fluid-energy mill for size reduction of a material, comprising:

a monolithic manifold having a front face and a rear face, the monolithic manifold including:

a cycloid-shaped grinding chamber formed in the front face and operable to impart particle-on-particle size reduction of material within the grinding chamber;

a feed inlet formed in the manifold in communication with the grinding chamber, the feed inlet oriented at an angle to a horizontal with respect to an upper surface of the monolithic manifold;

a gas inlet formed in the manifold in communication with the grinding chamber; and

an outlet formed in the rear face and in communication with the grinding chamber,

the manifold defining a non-circular groove around the grinding chamber;

a seal positioned within the groove; and

a cover removably attachable to the manifold for covering the front face;

wherein the grinding chamber has a center and a first radius extending from the center, the feed inlet is positioned such that the material enters the grinding chamber tangent to a second radius extending from the center, the second radius being larger than the first radius, and the gas inlet is positioned such that a gas enters the grinding chamber tangent to a gas inlet radius extending from the center, the gas inlet radius being smaller than the first radius.